

LFRic: Meeting the challenges of scalability and performance portability in Weather and Climate models

Chris Maynard, S. Adams, R. W. Ford, M. Hambley, J.M. Hobson, I. Kavcic, C. M. Maynarda, T. Melvin, E.H. Mueller, S. Mullerworth, A. R. Porter, M. Rezny, B. Shipway, R. Wong

Exascale computing presents a serious challenge for weather and climate models to exploit the available compute performance in terms of extreme parallelism. The UK Met Office along with collaborators is building a new model called LFRic. Employing the Gung Ho dynamical core for scalability and a separation of concerns approach to software will help meet these challenges.